

In the Abstract

A curable adhesive composition is provided, which comprises an epoxy terminated silane. A thin profile battery and a substrate to which the thin profile battery is to be conductively connected are also provided. The curable adhesive composition is interposed between the thin profile battery and the substrate. It is cured into an electrically conductive bond electrically interconnecting the battery and the substrate. In another aspect, the invention includes a method of conductively interconnecting electronic components using a curable adhesive composition which comprises an epoxy terminated silane. The invention in another aspect includes interposing In another aspect, a curable epoxy composition is interposed between first and second electrically conductive components to be electrically interconnected. At least one of the components comprises a metal surface with which the curable epoxy is to electrically connect. The epoxy is cured into an electrically conductive bond electrically interconnecting the first and second components. The epoxy has an effective metal surface wetting concentration of silane to form a cured electrical interconnection having a resistance through said metal surface of less than or equal to about 0.3 ohm·cm². In another aspect, a battery powerable apparatus, such as an RF communication device or RFID device, is coupled to a battery via a conductive includes a conductive adhesive mass comprising an epoxy terminated silane between a battery and substrate. A radio frequency communication device is one example. In another aspect, the invention includes an electric circuit comprising first and second electric components are electrically connected with

one another through a conductive adhesive mass comprising an epoxy terminated silane.